

## Virtual Tape Library (VTL) Virtual Appliance

High-speed VTL with optimized data deduplication to enhance the quality and efficiency of your tape backup

*The FalconStor® Virtual Tape Library (VTL) Virtual Appliance is a preinstalled, preconfigured, and ready-to-run software application package bundled into a virtual appliance that brings the market-leading VTL technology with data deduplication to VMware infrastructures.*

### Highlights

- > TOTALLY Open™ architecture integrates seamlessly with VMware technology
- > High-speed backup/restore via market-leading VTL
- > Integrated deduplication eliminates redundant data and compresses unique data, further enhancing efficiency
- > No impact on backup windows
- > Tape format awareness accelerates and optimizes the identification of duplicate data
- > Supports one-to-one and many-to-one offsite replication for disaster recovery (DR)
- > Lowers DR costs by slashing network traffic by over 95%

The FalconStor VTL Virtual Appliance offers fast backup, data deduplication, enterprise-wide replication, and tape integration in one solution, without requiring changes to the existing environment. Its built-in data deduplication feature automatically and transparently eliminates redundant data in backup and minimizes network traffic associated with offsite replication. As a result, this solution reduces infrastructure cost and complexity and maximizes return on investment (ROI) in virtual environments.

### High-performance backup/restore via multi-streaming/sessions

High performance backup is critical to overcoming the challenges of disappearing backup windows and explosive data growth. The FalconStor VTL Virtual Appliance provides multi-streaming, multi-session backup capabilities. This means that the appliance can connect to multiple backup servers and execute concurrent backup sessions, optimizing performance.

### Tape format awareness optimizes deduplication without impacting backup windows

The FalconStor VTL Virtual Appliance provides integrated data deduplication to eliminate redundant data. After data is backed-up, the built-in data deduplication engine scans for blocks that have been backed-up previously and preserves only one instance of each block, reducing the storage capacity consumed. This enables the fastest and highest performance backup while minimizing storage costs.

By understanding the tape format, the FalconStor VTL Virtual Appliance can identify file boundaries and thus better recognize duplicate data, increasing deduplication efficiency by more than 30%. The FalconStor VTL Virtual Appliance deduplicates all of the redundant data within a backup volume and across multiple backups.

### Compression enhances storage efficiency

After deduplication takes place, the FalconStor VTL Virtual Appliance compresses the unique data before it is stored in the data repository, further enhancing efficiency. For example, if backup data deduplicates at a rate of 15:1, the FalconStor VTL Virtual Appliance will then compress the unique data at a rate of 2:1. The total reduction in data size will equal 30:1. The process works automatically and transparently in the background without affecting backup speed.



## Global deduplication enhances DR efficiency and speed

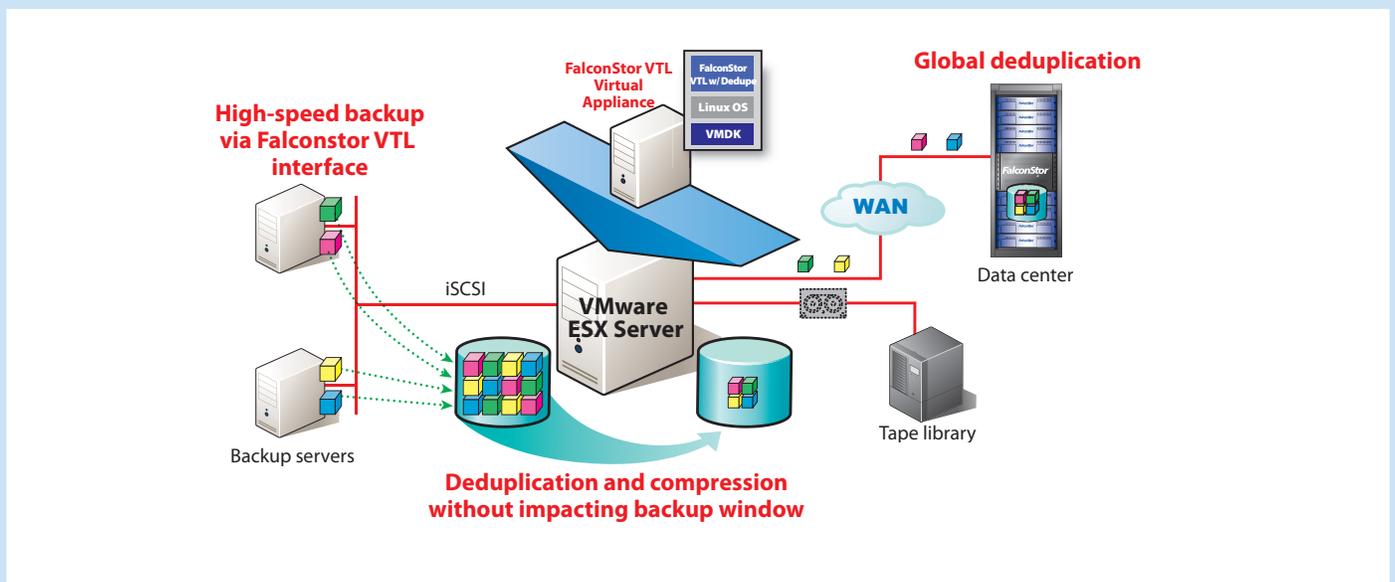
The FalconStor VTL Virtual Appliance enables remote replication for disaster recovery (DR) through an existing WAN. By replacing traditional manual transportation with network transfer and data encryption, the appliance lowers tape management costs and the risks of data loss. In the process of remote replication, only unique data blocks are replicated to the remote site, reducing network traffic by as much as 95% based on a 20:1 deduplication ratio.

To reduce tape infrastructure costs, many organizations consolidate data from various distributed sites to a central data center. The Falconstor VTL Virtual Appliance supports both one-to-one

replication and many-to-one replication configurations to enable tape infrastructure consolidation at a centralized data site. With the FalconStor VTL Virtual Appliance deployed at each site, virtual tapes can be replicated via WAN to the data center, where FalconStor VTL technology aggregates the data into a clustered repository of globally unique data.

Since identical data often exists at multiple sites, FalconStor VTL offers global deduplication to further reduce network traffic and DR costs. At each site, the FalconStor VTL Virtual Appliance performs deduplication by checking if the same data blocks exist at the data center, and replicating only unique data. Users at the data center can leverage the FalconStor VTL Virtual Appliance to migrate data to physical tape for archival or compliance purposes.

### FalconStor VTL Virtual Appliance solution architecture



## Specifications

Form factor	Virtual appliance
Host connections	iSCSI
Protected storage capacity (size of full backup)	0.8TB
Size of dedupe repository	2TB
Retention period (based on 2% daily change)	150 days
Equivalent storage capacity (based on 20:1 deduplication ratio)	40TB
Max. # virtual libraries/drives/cartridges	4/16/1024
Replication with encryption	Optional